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A PRE-LENAPE CULTURE IN NEW JERSEY

By E. W. HAWKES and RALPH LINTON

THE existence in New Jersey of archaeological remains older than those of the historic Lenape has been recognized for a long time, but our knowledge of the age, geographical distribution, and content of the more ancient culture, or cultures, is still very slight. In the hope of throwing further light on these problems, the Museum of the University of Pennsylvania, with whose work the authors have been connected, has carried on investigations in the central and southern parts of the state during the past two summers, and excavations have been made at several sites, which have yielded important results. A description of the first of these, near Masonville, has already been published as no. 3, vol. VI of the Museum's Anthropological Publications. A site near Medford, excavated during the past summer, has revealed what is apparently an extension of the culture found at Masonville, and the two present enough points of similarity to justify their description together.

At both the Masonville and Medford sites, which are about eight miles apart, the geological strata appear to be identical in nature and arrangement. Their order is as follows:

1. A surface layer of black soil, six inches to a foot in depth.
2. A layer of yellow sand three to six feet in depth.
3. A layer of white sand about a foot in depth.
4. A layer of cretaceous marl extending to below the ground water level.

The consulting geologist, Dr. A. P. Brown of the University of Pennsylvania, declared the surface black soil to be of recent origin, the yellow sand of glacial or immediately post-glacial age, and the white sand of glacial age.

Artifacts of the recent Lenape type were obtained at both sites from the black surface soil, but were not found at any of the lower levels. At Medford, many artifacts differing in type and material

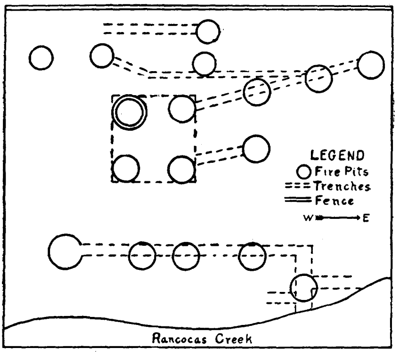
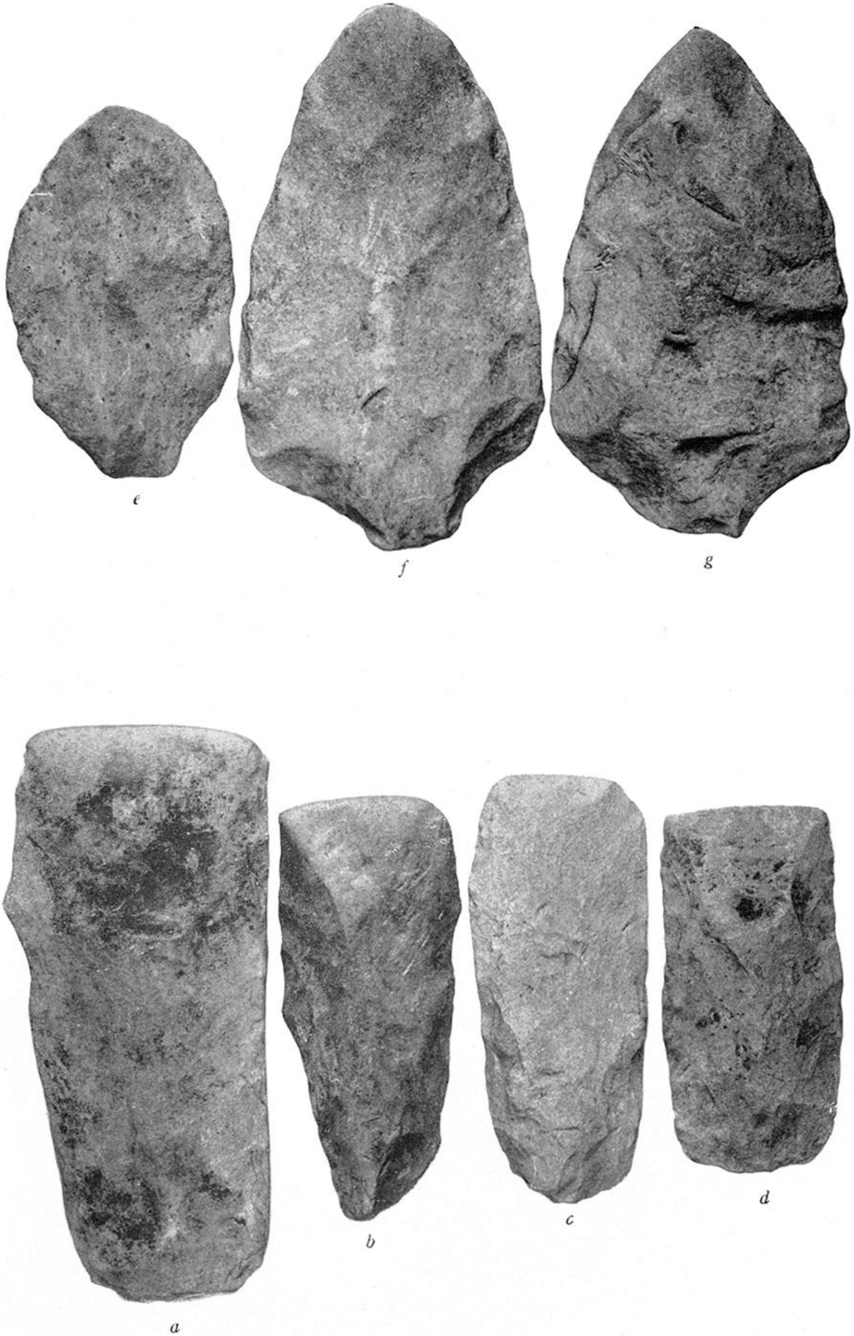
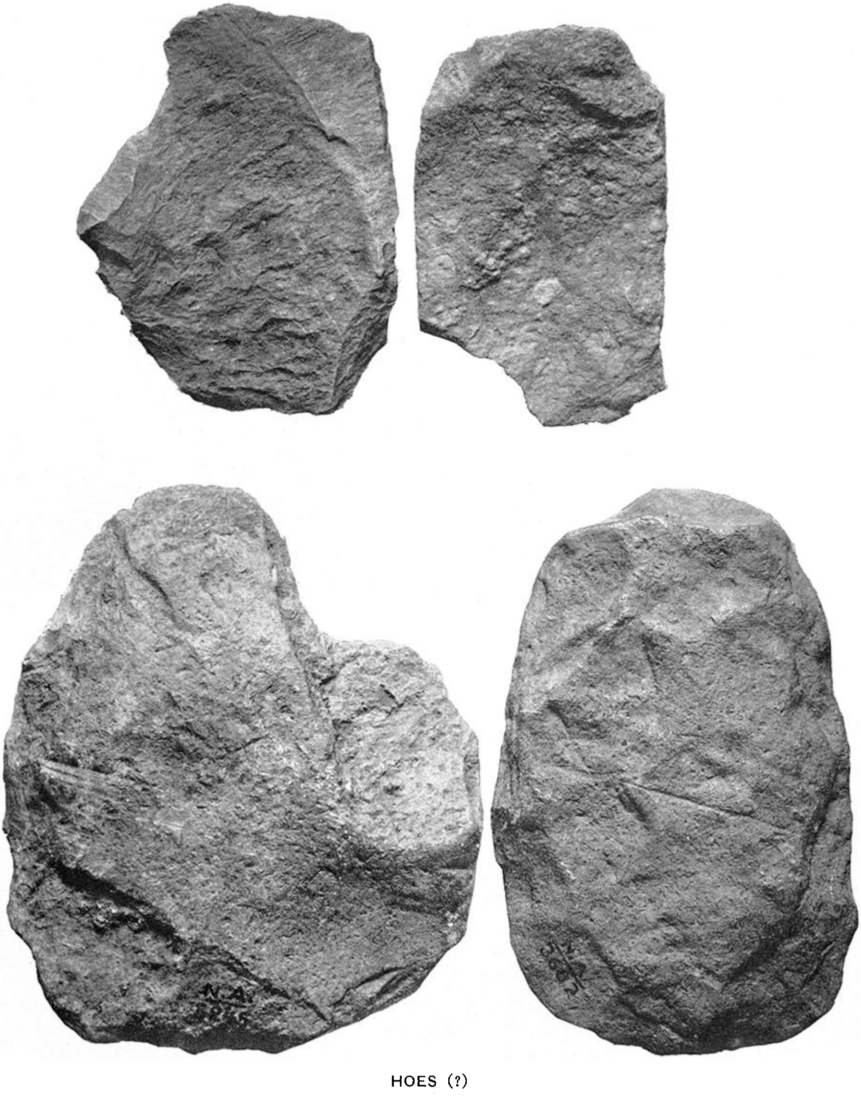


FIG. 65.—Diagram of excavation at Medford, N. J.

from those of the recent period were found scattered through the yellow soil from top to bottom, while at Masonville the only objects found in the yellow sand were about a dozen points and some sherds of a peculiar pottery, all of which occurred at a single level about midway between the surface soil and the white sand. No traces of fires or other signs of occupation were found in the yellow soil at either site, but at both sites, *a distinct and well-marked level of occupation occurred at the juncture of the white and yellow strata.* This was most strikingly shown by the presence of fire pits, the ashes and charcoal of which had discolored the underlying white sand, and in some cases even the marl, while no similar discoloration extended up into the overlying yellow soil. Additional proof was offered by the fact that by far the greater part of the artifacts found occurred at this level. At the Masonville site there was a great central fire pit, around which caches of objects had been systematically arranged. These caches were of two types: the more common consisting of one or two bannerstones, associated with concretions of peculiar form, fossils, etc.; while deposits of less frequent occurrence contained two large argillite spear heads or blades associated with a handful of bone fragments. Certain of these bone fragments were identified by a paleontologist as belonging to the bear, deer, and wild turkey. All these caches were found at the juncture of the yellow and white strata At the Medford site many small fire pits (fig. 65) were found around which were scattered artifacts of all sorts, finished and unfinished, including three bannerstones. While the great bulk of the artifacts at this site, as in that at Masonville, occurred at the juncture of the white and yellow sand, the objects found in this position were indistinguishable from those found scattered in the overlying yellow soil. The objects from both sites were apparently identical in type, material, and



CHIPPED CELTS AND BLADES



HOES (?)

workmanship. Sherds of pottery of the sort found in the yellow soil at Masonville were found on the surface of the white sand at Medford. There were no signs of disturbance in the yellow soil at either site; and the conclusion seems inevitable that *the artifacts found on the white sand were deposited, and the fires built, at some time prior to the deposition of the yellow soil.*

Excavations made near Indian Mills revealed artifacts similar in type and material to those found at the above described sites scattered through a stratum of yellow sand underlying the black soil of the present surface, but did not show any recognizable level of occupation. Excavation of shell heaps near Tuckerton also disclosed artifacts of this sort in shell deposits underlying those of the recent Indians and separated from them by thick layers of undisturbed black soil. No excavations have so far been made in the extreme southern part of the state, but there is an abundance of material in local collections which is quite indistinguishable from that excavated by the authors. Not all the artifact types found at Masonville and Medford occurred at Indian Mills and Tuckerton, and the excavations at the latter sites were not of sufficient extent to give final proof of either cultural continuity or difference, but all the types found there were, however, present at the two more important sites as well.

At all the sites excavated the artifacts of the recent Indians, and those of the ancient inhabitants, occurred in sharply differentiated strata, the former being associated with the recent surface soil, the latter with the yellow and white sand layers. Enough material has been collected from the ancient levels of occupation at Masonville and Medford to render possible a tentative description of the implement types of the older culture, as follows:

I. *Chipped Celts* (plate IX, *a*, *b*, *c*, *d*). These implements, all of which have been found at the surface of the white sand, represent a hitherto undescribed type for New Jersey. They are of argillite, or some closely related mineral, chipped, and with the cutting edge ground. In one unfinished specimen the edge is unground. A slight projection has been left on the side of another specimen, apparently to facilitate hafting. Still another is of adze form. Length, three to eight inches.

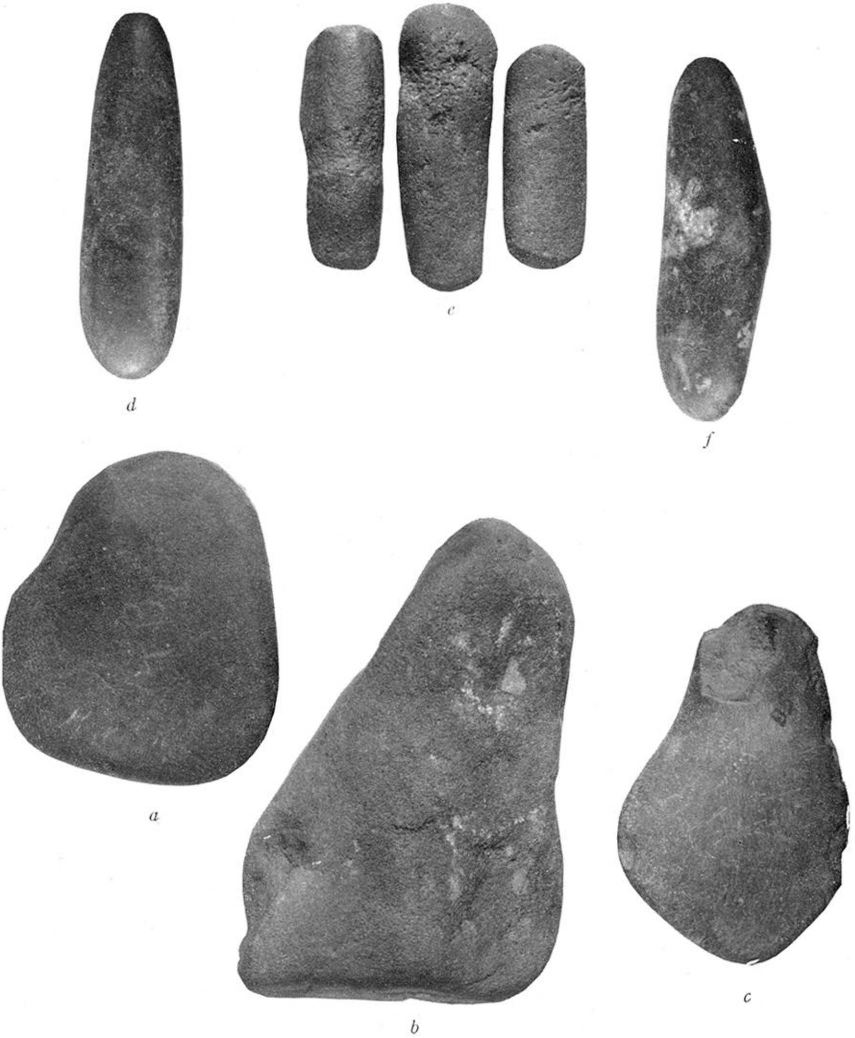
II. *Hoes* (plate X). This name has been tentatively applied to certain crude implements found on the surface of the white sand at Masonville and Medford, and in the yellow soil at Indian Mills. They are of crude workmanship, roughly oblong in shape and concave on one side. Some of the specimens are quite thin and fragile at one end, and do not seem adapted for heavy work. They may have been used for digging in the sand. None of them show signs of hafting.

III. *Hand Hammers* (plate XI, *a*, *b*, *c*). This name has been applied to a series of pear-shaped glacial pebbles found in the caches at Masonville. In every case they were associated with problematical objects or bone fragments. All showed signs of battering along the lower edge, but were otherwise unworked. Apparently they were not hafted.

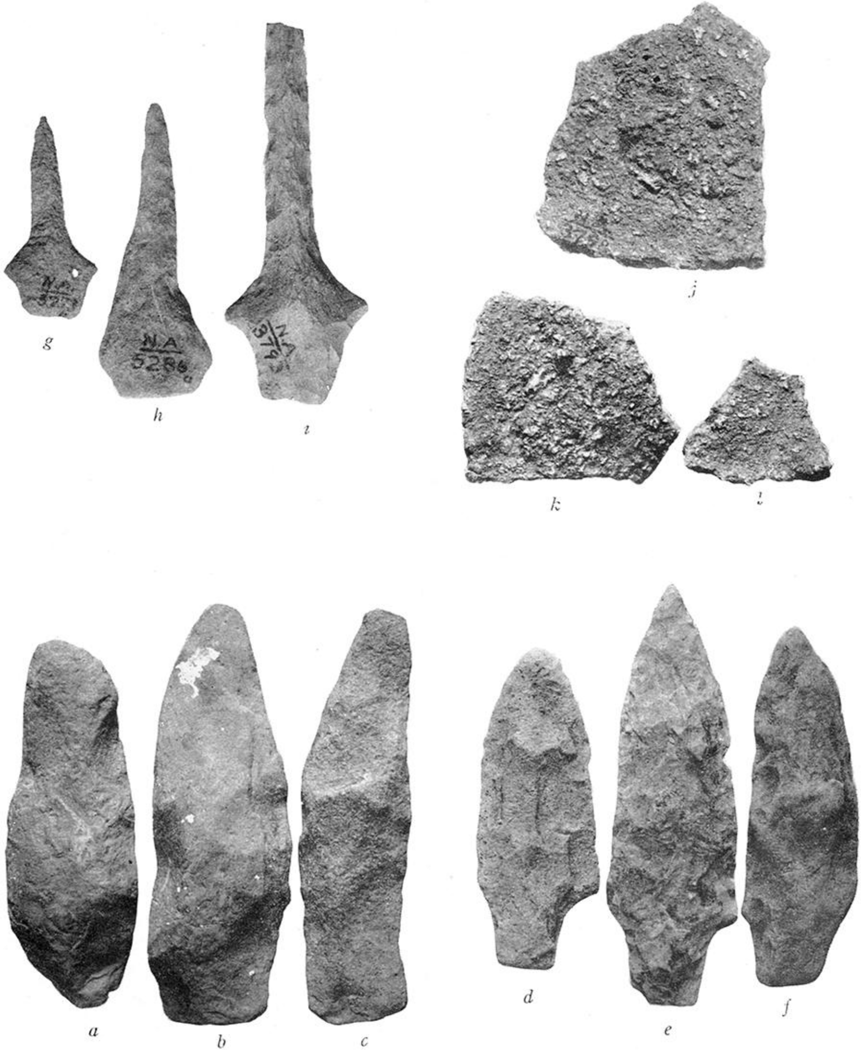
IV. *Small Cylindrical Stones* (plate XI, *d*, *e*, *f*). Several of these peculiar objects were found on the white sand at both sites, those at Masonville being in the caches. A few were of sandstone, but the majority were of harder, tougher material. All appeared to be natural forms, but in every case they showed signs of battering at one or both ends, while some specimens had been highly polished. One sandstone specimen had had a shallow groove pecked about its middle. Another, found at Masonville, showed traces of red paint. Their average length was about three inches.

V. *Large Blades* (plate IX, *e*, *f*, *g*). These are large leaf-shaped blades which occurred in the caches at Masonville, both on the white sand and in the yellow soil at Medford, and in the yellow soil at Indian Mills. They are of crude workmanship, but quite symmetrical in outline. This would seem to be the commonest of the large implement forms.

VI. *Knives* (plate XII). Under this general head have been grouped two distinct types of implement. 1 (*a*, *b*, *c*). This is a very crude form made by striking off a few large chips from one side only of a larger flake. The base is so thick as to make hafting improbable. 2 (*d*, *e*, *f*). This form is thin and carefully worked, with a distinct stem used for hafting. The most striking feature of these implements is their lack of bilateral symmetry, one edge



HAMMERS



KNIVES, DRILLS, AND POTSHERDS

being considerably more curved than the other. Both forms were found on the white sand at Masonville and Medford, and the first in the yellow stratum at Medford. They vary in length from three to five inches.

VII. *Ceremonial Points* (plate XIV, *a*, *b*). Under this head have been grouped three large spear heads, found in the caches at Masonville, which are so far superior in workmanship to the ordinary implements of the pre-Lenape inhabitants that they belong in a class by themselves. Two of the specimens are of argillite, the third of a bluish quartzite. They are characterized by large size, perfect barbs and stems, and general beauty of outline. The blades are extremely thin, with evenly chipped edges. In view of the rather refractory material used, their workmanship seems to compare favorably with that of any implements found on the recent village sites of the region.

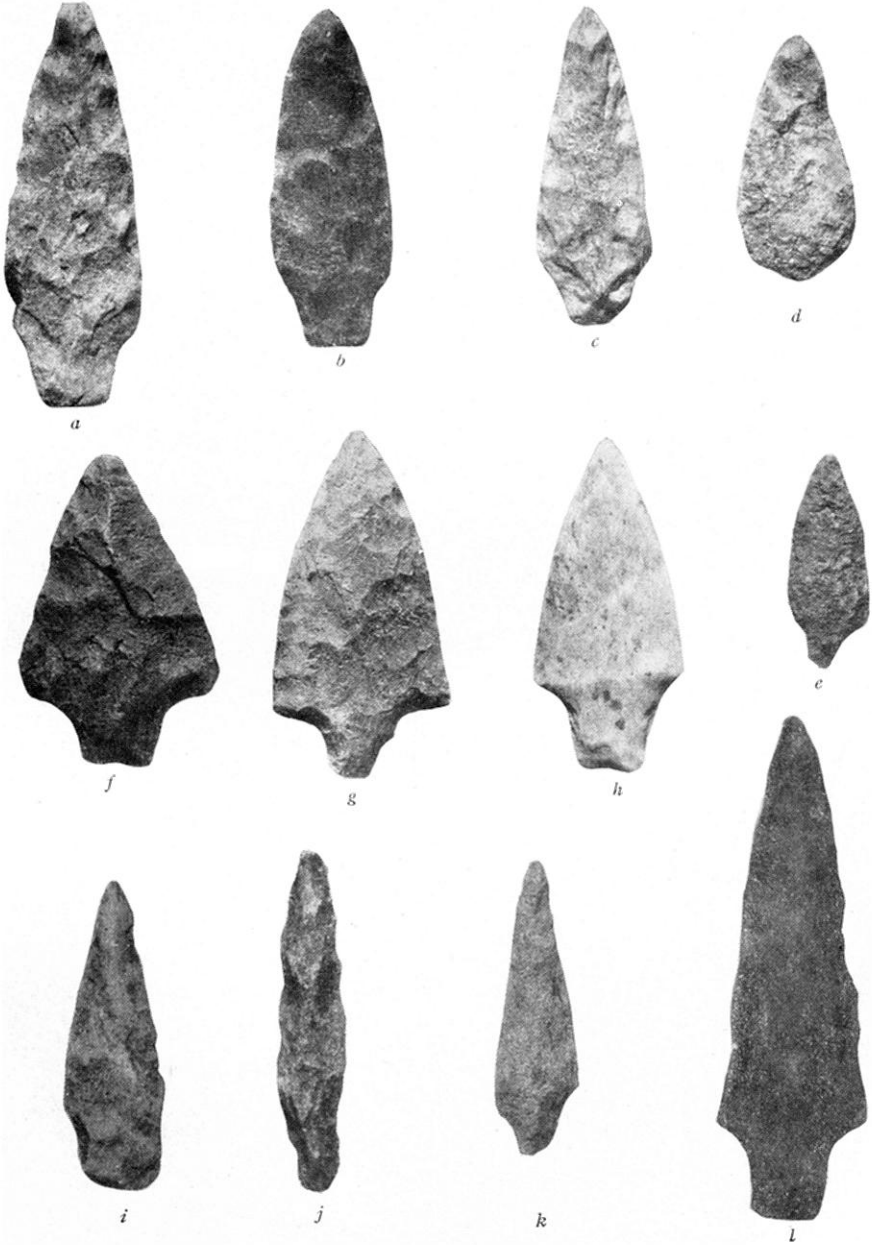
VIII. *Small Projectile Points* (plate XIII). Large numbers of these artifacts, which might have been used as arrow or javelin heads, were found on the surface of the white sand at Masonville and Medford, and in the yellow soil at both places and Indian Mills. Several were also obtained from the lower shell layer at Tuckerton. On the basis of form, these points fall into three main types. 1 (*a*, *b*, *c*, *d*, *e*). The great majority of the smaller points are of this type, which is characterized by a thick midriff, and the absence of well-marked barbs and stems. In outline they are almost diamond-shaped. In length they vary from less than an inch to four inches. 2 (*f*, *g*, *h*). This type, which is roughly triangular in outline, with well-marked barbs and a short stem, is not uncommon in the later Lenape specimens. The points of this form found were much more uniform in size than those of the preceding type, the average length being about two inches. 3 (*i*, *j*, *k*, *l*). Thick, roughly made points, with very heavy midriff and narrow blade. They have very small barbs, or are quite barbless. This is the type called "fish spears" by Mr. Abbott and Mr. Volk.

IX. *Drills* (plate XII, *g*, *h*, *i*). A number of the long narrow points with broad bases, to which this name is popularly applied, were found on the white sand and in the yellow soil at Medford.

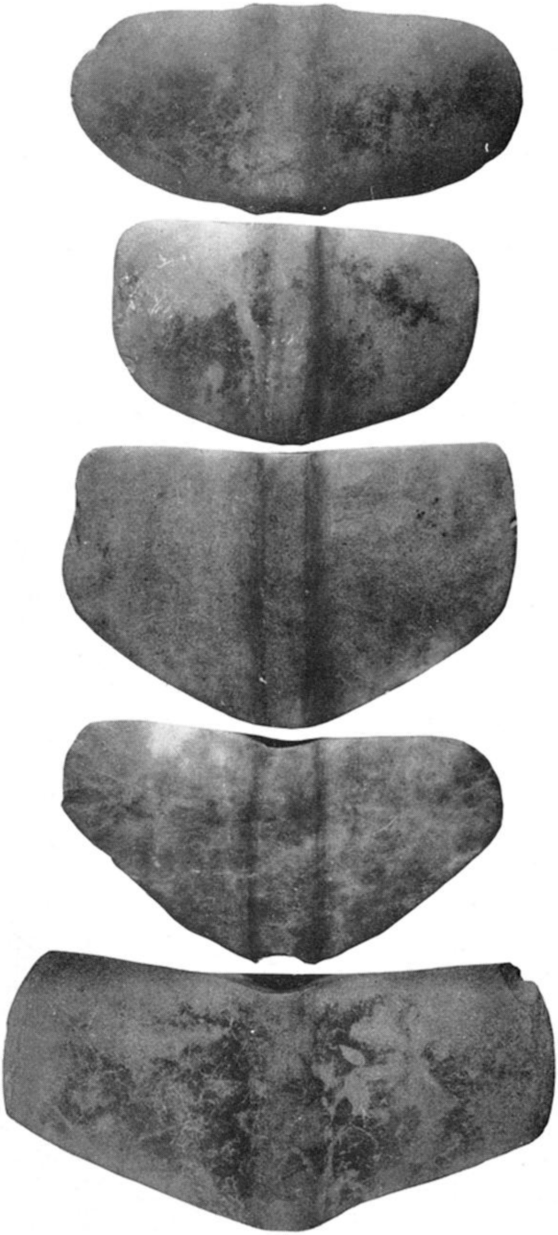
The artifacts obtained from the yellow soil at Masonville also included a drill, (*i*) although none were found at the lower levels.

X. *Bannerstones* (plate XIV, *c*). Mention has already been made of the great number of bannerstones found on the white sand at the Masonville site, and of three others, including one unfinished specimen, obtained from the lowest level at Medford. The presence of these objects in the lowest stratum presents an interesting anomaly, for in size, beauty, and perfection of workmanship they surpass anything of their sort hitherto reported from the state. No other artifacts made by the processes of pecking, grinding, and polishing were found at the lowest level or in the yellow soil of either site, but a comparison of the bannerstones with the chipped implements would seem to indicate that the ancient workmen were, if anything, more skillful in the less used technique. The authors were at one time inclined to believe that the bannerstones might be importations from some neighboring area of higher culture, but the discovery of an unfinished specimen would militate against this. Moreover, the forms present agree more closely with those found on recent village sites in the northeastern United States than with those from any other region. The entire series of bannerstones show a marked uniformity in shape and workmanship, only two specimens showing decided differences from the type. The average length of those found at Masonville was two and four tenths inches, with a maximum wing width of six inches, and a minimum of two and eight tenths inches. The longitudinal perforation had been made with a reed and sand, the drilling having been done in some cases from one, in others from both, ends. The internal diameter of the boring was remarkably uniform in all the specimens, nineteen showing a variation of less than four one-hundredths of an inch. A number of minerals were used, not all of which have been determined.

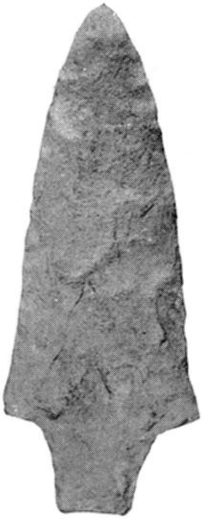
Like the recent Lenape, the ancient inhabitants seem to have been pottery users (plate XII, *j*, *k*, *l*). The ancient ware is, however, of a distinctive character. It is made from a mixture of clay and pounded steatite, the latter composing more than half the bulk. The cementing clay is bright red in color, and the fragments



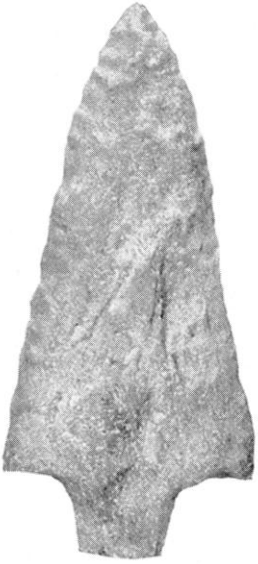
PROJECTILE POINTS



c



b



a

CEREMONIAL POINTS AND BANNERSTONES

found were so soft and friable that it seems improbable that the ware was ever subjected to any high degree of heat. No whole vessels were found, but the shape of the fragments would seem to indicate that they formed part of round or oval pots, with straight sides and flat bottoms. Pieces of this pottery were found at the lowest level at Medford, and in the yellow soil at Masonville. Other fragments, said to have been found near Camden, were preserved in a private collection inspected by the authors.

It can be seen from the foregoing descriptions that the ancient culture was of a fairly high order. Pottery was used, and the artifact types show considerable differentiation. It is differentiated from that of the Lenape by the presence of certain forms and the absence of others. Thus chipped celts and adzes, if they occur at all on recent village sites have never been described. On the other hand, no pestles, mortars, mullers, grooved axes, or indeed any implements made by the pecking and polishing process (other than bannerstones) have so far been found at the lower level. As can be seen from the detailed description given above, the older pottery also contrasts sharply with the well-baked, sand-tempered ware of the Lenape. Still another contrast is offered by the materials employed by the two peoples in the manufacture of their chipped implements. The Lenape used a wide variety of minerals, with a preference for jasper, quartzite, flint, and quartz. In some sections argillite was extensively used, but apparently always in connection with some of the minerals above mentioned. The older inhabitants seem to have employed argillite, or other materials so closely similar as to be indistinguishable to the layman, to the practical exclusion of all other substances. This material does not seem especially well adapted to implement making, for it is coarse grained and chips unevenly, and its use seems explicable only on the basis of a lack of other workable stone. Much of the crudity displayed by the ancient artifacts is no doubt directly referable to the poorness of the medium. Argillite, when exposed to the action of the ground water, undergoes a marked chemical change, and many of the specimens found had turned on the surface to a clayey substance soft enough to be easily scratched with the finger nail. This patination gives an appearance of great age, although nothing is actually known about the rate at which the transformation takes place.

In view of the cultural differences which we have here pointed out, it seems certain that there have existed in New Jersey at least two cultures; while the presence of both at the same sites, but in different strata, would prove that here at least they were not contemporaneous. The surface remains may with some certainty be referred to the historic Lenape, while those from the lower level can be ascribed to some people who were their predecessors. Whether the finds of implements, similar in type and material to those found by us at the lower level, which have been reported from various parts of the state, mark geographical extensions of the culture present at Masonville and Medford we do not feel in a position to say. The period at which the ancient culture flourished is also uncertain, *but there can be no doubt that it existed, in fully developed form, at a time prior to the deposition of a thick stratum of yellow sand, which is supposedly of glacial or immediately post-glacial origin.* Needless to say, the rich content of the ancient culture is at variance with all preconceived ideas of the status of man in America at that period.

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